PETROLEUM PRODUCT CONSUMPTION AND REFINING

Overview

In 1999, Indonesia's production of oil fuels and non-fuels rose slightly to 961,000 B/D (152.8 million liters/day), largely due to increased production of oil fuels. Most of the petroleum products refined in Indonesia are destined for domestic consumption. Consumption increased in 1999 to to 50.8 million kiloliters (KL), up from 48.1 million KL in 1998 and slightly more than 1997's 50.3 million KL. Consumption increased in nearly all categories of fuel, with the strong likelihood that a significant part of the increase resulted from smuggling of Indonesian fuel products to neighboring countries. In 1999, fuel product imports rose to 79.9 million barrels, at a cost of $1.7 billion and up sharply from 1998's 54.1 million barrels.

Domestic Consumption

According to the Ministry of Energy and Mineral Resources, domestic demand for oil products rose 5.6 percent to 50.8 million KL in 1999 from 48.1 million KL in 1998. The Government is currently predicting that demand will increase to 53 million KL in 2000 and 58.8 million KL in 2001, due to more positive GDP growth projections. Domestic sales of fuel products during the first half of 2000 reached 27 million KL. The majority of domestic consumption is accounted for by transportation (46 percent), industry (23 percent), households (23 percent) and electric power (8 percent). The transportation sector uses largely automotive diesel oil (ADO), while households are the largest consumers of kerosene.

Pertamina's Directorate of Domestic Logistics and Marketing is responsible for the distribution of fuel products to end-users from 166 storage depots throughout Indonesia. The Directorate has established eight regional representative offices to market the products. Fuel products are transported via an elaborate pipeline network and by tank trucks, rail tank wagons, tank vessels and barges. Pertamina controls the sale of gasoline and automotive diesel by direct ownership and franchise of close to 3,000 gasoline stations nationwide. The private sector is also involved in selling kerosene. The selling price of fuel oil on the domestic market is determined by the government, which applies a uniform tariff for each type of fuel throughout Indonesia.

Domestic Fuel Consumption
(Million Liters)

Products	1998	1999	2000 Jan-Jun
ADO	19,674.0	19,835.9	10,580.5
Gasoline	10,971.7	11,515.4	5,990.5
Kerosene	10,144.5	11,926.7	5,705.3
Fuel Oil	5,229.3	5,429.1	2,997.0
IDO	1,271.8	1,518.4	740.0
Avtur	796.9	545.2	683.9
Avgas	5.7	5.6	3.3
Total	**48,099.7**	**50,776.3**	**26,700.4**

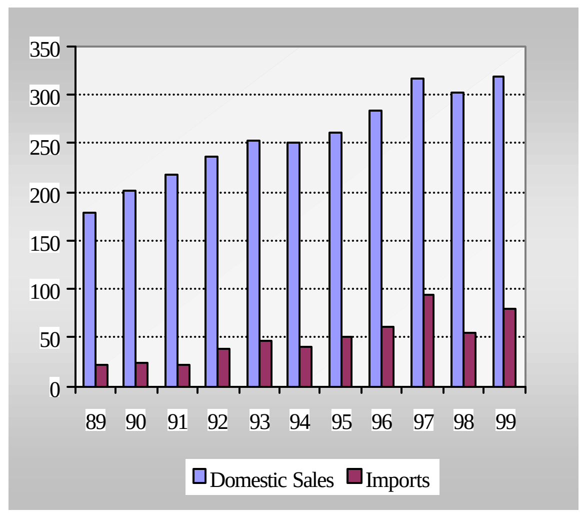
Fuel Imports

Indonesia remained a net exporter of crude oil and products in 1999, although industry analysts predict that barring any new major discoveries of oil, Indonesia will become a net importer early in the next century. If all of Indonesia's nine refineries were fully operational, Indonesian fuel production would only match about 80 percent of domestic demand, thus making it necessary to import both crude (for blending) and fuel products. In 1999, fuel product imports rose to 79.9 million barrels, at a cost of $1.7 billion and up sharply from 1998's 54.1 million barrels. This level of fuel product consumption approached 1997's pre-crisis level of 95 million barrels. While the largest import product category was automotive diesel oil, imports of industrial diesel oil, fuel oil, and High Octane Mogas Component rose significantly and kerosene imports increased by 400 percent.

A number of factors converged to cause a shortage of gasoline in Jakarta and elsewhere on Java-Bali during the month of July 2000, including the resurgence of demand described above. The Balongan refinery was shut down from June 22-July 25 due to a breakdown in the main blower unit and associated problems. As a result of an oil spill from the tanker King Fisher on April 1, the Cilacap refinery was unable to receive its normal level of supplies until the spill was fully cleaned up on May 9. These problems were further compounded by an accidental explosion at the Balikpapan refinery on August 7. World market constraints meant that Pertamina had difficulties purchasing additional supplies of gasoline.

Pertamina took several steps to prevent a recurrence of the shortage. It imported an additional six million barrels per month for August and September 2000, mostly diesel, kerosene, and gasoline. Pertamina also concluded a crude processing deal (CPD) with Shell International Eastern Trading Company (SIETCO), a unit of the Royal Dutch Shell group, to process 50,000 B/D of imported Arabian Light Crude at its Singapore refinery for a three-month period starting October. In October, Pertamina announced that it had signed a six-month CPD with Malaysian national oil company Petronas to process 20,000 B/D of Pertamina's crude starting in November. Pertamina is also negotiating with ExxonMobil's Singapore unit to process another 40,000 B/D.

Domestic Sales and Imports of Fuel Products (In million barrels)



Pricing

Petroleum product prices are government-administered and remain a matter of great sensitivity in Indonesia. Kerosene, diesel and fuel oil prices remain heavily subsidized and continue to be cross-subsidized by premium gasoline to minimize the impact on lower income groups.

After postponement of an increase originally planned for April 1, the Indonesian Government raised fuel prices by an average of 12 percent on

October 1, 2000. (The new prices are still substantially below world prices, requiring the GOI to follow up with further rounds of price increases.) This was the first general fuel price increase since 1993. Pertamina, which has the authority to set prices on premium gasoline, had earlier raised the prices of "Premix," an automotive fuel with additives, and "Super TT," unleaded gasoline, effective April 8. The price of Premix was increased 15.3 percent to Rp 1,500/liter (US 16.6 cents at Rp 9000/US$) and Super TT by 14.3 percent to Rp 1,600/liter (US 17.8 cents).

For budgetary purposes, the GOI assumes an estimated annual crude oil price and an exchange rate for the year. Any deviation in the actual world price of crude oil and/or a change in the rupiah exchange rate vis-à-vis the dollar affects the budget's net oil profit or oil product subsidy. In its FY 2000 budget (covering April-December 2000), the GOI calculated a $20.00/barrel crude oil price and an exchange rate of Rp 7,000 to the U.S. dollar. In reality, from April to August, the average crude price was $28/barrel and the average exchange rate Rp 8,200/$. As a consequence, the fuel subsidy bill inflated drastically, lending greater urgency to October's fuel price increase.

While the FY 2000 budget forecast a fuel subsidy of Rp 22.5 trillion (US $3.2 billion at the budget exchange rate of Rp 7,000/$) for the nine-month fiscal year, the actual subsidy was estimated to be Rp 43.2 trillion (US $6.17 billion) even after the October 1 price increases. In the 2001 draft budget, the Government allocated Rp 36.4 trillion for the fuel subsidy, based on a domestic fuel price increase of 20 percent effective April 1, 2001 and total consumption of 58.8 million KL of crude.

Domestic Fuel Products Prices
(Rp/Liter)

Product	pre- May 4 1998	May 5 1998	May 16 1999	Oct 1 2000
IDO	360	500	500	550
Fuel Oil	240	350	350	400
Kerosene	280	350	280	350
Gasoline	700	1,200	1,000	1,150
ADO	380	600	550	600

Note: Prices at Pertamina's pump stations including 10% Value Added Tax

Deregulating Domestic Refining

Prior to the economic crisis, Pertamina estimated that Indonesia would need to double refining capacity from 1.0 million to 2.0 million B/D of oil by 2003 to keep pace with growing domestic demand. In the early 1990's, the GOI determined that Pertamina did not have the funds to build additional refining capacity and undertook a series of measures to attract private investment in the refining sector. Until the issuance of Presidential Decree (PD) No. 31/1997, the major stumbling block to private investment in refining was Pertamina's inability to guarantee a crude oil supply or to commit to purchasing the fuel produced by the refineries.

Under PD No. 31/1997, the GOI loosened Pertamina's hold on refining by allowing private refineries to market their products domestically through Pertamina.

Highlights of PD 31:

- Private refineries can be set up by Indonesian companies in partnership with foreign firms or with Pertamina;

- Pertamina buys oil fuels and other refinery products from private companies on a long-term trade contract basis in line with Pertamina's needs and absorption capability and considering the economics of the private corporation's refinery products;

- Pertamina's buying price for fuel from those private refineries is based on the international market price;

- Oil products produced by private refineries which are not needed by Pertamina can be sold by the private companies on the international markets;

- Pertamina will remain the sole distributor of fuel in the domestic market.

Private refineries are permitted to market domestically products, such as lubricants, not otherwise prohibited by Pertamina.

Further Reforms

PD 31 was only one step toward rationalizing Indonesia's petroleum and energy supply industry. Indonesia faces a number of challenges, such as shortages of capital for infrastructure development, in its efforts to upgrade and expand its refining capacity. To make deregulation of the downstream work and encourage private sector participation, Indonesia should:

- Eliminate Pertamina's monopoly position;

- Ensure that investors and participants are given equal regulatory and legal treatment;

- Establish a transparent pricing regime based on market prices;

- Rationalize, simplify and streamline the downstream administration;

- Allow private companies to import oil products; and

- Permit private companies to construct, own and operate filling stations.

Indonesia remains committed to opening its downstream sector by 2003 under the ASEAN Free Trade Area scheme. The Indonesian Parliament was considering an oil and gas bill toward the end of 2000 which, if enacted in its present form, would open up the oil and gas sector considerably.

Public Refineries

Indonesia has nine oil refineries, all owned and operated by state oil and gas company Pertamina, with a combined installed capacity of 1.06 million B/D. The nine refineries are located in Sumatra, Java, East Kalimantan and Irian Jaya. They produce a mix of oil fuels (diesel, fuel oil and kerosene), liquefied natural gas, secondary fuels (such as naptha) and non-fuels (such as asphalt and lubricants).

Pertamina's President Director announced his intention to integrate all of Pertamina's refineries into one strategic business unit in 1999, but the reorganization was delayed to early 2001. Pertamina foresees requiring the refineries to buy crude oil at market prices and to sell fuel products to the government also at market prices. The GOI is also considering ending Pertamina's monopoly to produce, import and distribute oil-based lubricants.

Oil Refining Plants

Refinery facility/ Location	Installed Capacity (1000b/d)	Crude Processed 1999
Pangkalan Brandan, N. Sumatra	5.0	3.8
Dumai, C. Sumatra	120.0	126.7
Sungai Pakning, C. Sumatra	50.0	46.2
Musi, S. Sumatra	135.2	117.1
Cilacap, C. Java	348.0	320.3
Balikpapan, E.Kalimantan	260.0	237.3
Balongan, W. Java	125.0	101.0
Kasim, Irian Jaya	10.0	5.9
Cepu, C. Java	3.8	2.6
TOTAL	**1,057.0**	**961.0**

Balongan

As reported above, Indonesia's newest state-owned refinery at Balongan in West Java continued to experience difficulties in 2000. The refinery, with capacity to process 125,000 B/D of domestic crudes, shut down for three months in 1998 due to a mechanical fault at the plant and for about 70 days in 1999. The refinery was initially designed to supply export markets, which is why it is also called the Exor (export oriented) I refinery.

The refinery has two production units: the crude distillation unit (CDU) and the residue catalytic cracking unit (RCCU). The CDU processes crude oil into naptha, kerosene, automotive diesel and residue; the RCCU turns the residue from CDU into LPG and Premium, Super TT and Premix gasolines. The RCCU, one of the world's largest, has processing capacity of 83,000 B/D, but has experienced problems since its commissioning in 1994. It is now a target of KKN investigations.

Cilacap

On August 25, 1999, the U.S. Export Import (EXIM) Bank completed a $238 million loan conversion for Indonesia's Cilacap Oil Refinery Expansion. EXIM's 1995 commitment to "take-out" or assume, financing on the project once it was successfully operational helped Pertamina secure the backing of Fluor Daniel and a group of banks led by Citicorp during the construction phase of the $606 million project. EXIM has decided to make a direct loan to assume financing on 48 percent of the project. A private lending group will carry the remainder.

The Pertamina-owned Cilacap refinery is located on the south coast of Java. The Cilacap expansion project involved removing current process equipment bottlenecks, adding a new lube facility and installing new efficient equipment to increase production. As a result, processing of crude oil in the existing refinery complex increased by approximately 16 percent from 300,000 to 350,000 B/D and naphtha and paraxylene production capacity more than doubled. Low sulfur waxy residual oil and lube oil production capacity increased by 28 and 68 percent, respectively.

Cilacap was shut down for routine maintenance from April 29 to May 25, 1999. According to Pertamina, the crude distillation unit was completely overhauled. To compensate for the closure of the refinery, Pertamina contracted to buy an additional 1.0 million barrels of fuel products in May 1999.

Other Projects

In September 1997, the GOI announced the decision to postpone or review a large number of projects in order to strengthen the national economy in the face of the ongoing regional financial crisis. The modification of the Balikpapan refinery unit two was postponed and the Java pipeline stage one, which envisaged building a pipeline system on Java to reduce distribution costs, was to be reviewed. Five of Pertamina's oil depot projects were also put on the list for review.

Unleaded Gasoline

In one of his last decisions in October 1999, the outgoing Minister of Mines and Energy signed a ministerial decree stipulating an increase in unleaded fuel use by 2003. To meet this goal, the government will need to encourage production of unleaded fuels. Due to financial difficulties, the government delayed the construction of three catalytic reformer units (CRU), which were intended to increase supplies of unleaded gasoline as consumption of leaded gasoline was reduced. The three-planned CRU projects, with an estimated cost of $225.2 million, were planned for the Musi refinery (13,500 B/D capacity), the Balikpapan refinery (18,000 B/D) and the Cilacap refinery (5,000 B/D). Despite the delay, the government remains committed to implementing its "Blue Sky" program to eliminate leaded fuel.

Private Refinery Projects

The Chairman of the Investment Coordinating Board (BKPM) announced in November 1998 that the GOI planned to offer companies a tax holiday of between 10 and 12 years as an incentive to build private refineries outside of Java. While BKPM had already approved 16 refinery projects (mainly on Java), none has been built due to financing difficulties. A number were subsequently canceled due to alleged links to corruption.

In January 1999, Pertamina announced that it had canceled Memoranda of Understanding for the construction and/or upgrade of three refinery projects due to links with corruption, collusion and nepotism ("KKN"). The three construction projects were the PT Nusamba Refinery in Lombok owned by former President Soeharto's associate Bob Hasan; the PT Buana Ganda Perkasa Refinery in East Java owned by former President Soeharto's step brother Probosutedjo; and the PT Asia Pacific Petroleum Refinery in Situbondo, East Java which is partially controlled by Soeharto's son Bambang Trihatmodjo.

A fourth refinery in Cepu, Central Java, built by Soeharto's youngest son Hutomo "Tommy" Mandala Putra, is currently mothballed. The 13,000 B/D refinery was completed in 1999 partly with U.S. ExIm Bank financing. Under the original plan, the refinery was to process crude oil from Humpuss' Cepu Block, but, on June 29, 2000, ExxonMobil assumed ownership of the block from Humpuss Patragas. ExxonMobil now holds 51 percent equity with ExxonMobil's Australian subsidiary, Ampolex Cepu, holding the remainder.

Hemoco Selayar Oil Refinery

In 1998, the government gave approval to Hemoco Selayar Oil Refinery, a joint venture between Hemoco Kuwait General Trading & Contracting Co. (60 percent) and a local firm, PT Kilang Minyak Bumi (40 percent), to build a $2.4 billion export-oriented refinery and petrochemical complex in Selayar island, South Sulawesi. The feasibility study has been completed and the facility is scheduled to open in 2003. Kuwait Petroleum Company will supply crude oil for the refinery. The facility is designed to produce LPG (126.7 thousand MT/Y), gasoline (3.5 MMT/Y), diesel oil (2.0 MMT/Y), diesel fuel (226,000 MT/Y) and sulfur (52,000 MT/Y).

Balongan-II Oil Refinery

A joint venture between Pertamina (15 percent), Pertamina's Retirement Fund (10 percent) and a consortium of Japanese companies consisting of Tokyo Menka (45 percent), Pacific Petroleum Trading (20 percent) and Nippon Oil Company (10 percent) plans to develop a $1.3 billion oil refinery in Balongan, West Java, next to Pertamina's Balongan refinery. The project, known as "Balongan II," is designed to produce 125,000 B/D of petroleum fuel, of which 50 percent will be marketed domestically and 50 percent exported. The project is designed to process ALC and Katapa crudes. Pertamina has agreed to purchase part of fuel production.

New Refinery Projects

The government approved three oil refinery projects with a total value of US $9 billion in 1999-2000. Two projects will be located on Batam Island and the third project in Pare-Pare, South Sulawesi.

PT. Minyak Pola Permai and Hightech International Group of Saudi Arabia plan to invest US $3 billion to build a 300,000 B/D oil refinery in Batam, which is expected to be operational in 2004. Project financing will be coordinated by Bank of America Asia Ltd. The refinery will process Saudi Aramco light crude to produce mainly gasoline, kerosene and diesel oil.

PT Kilang Minyak Intan Nusantara, a joint venture of Al-Banader International Group of Saudi Arabia (40 percent), China National Electrical Equipment Corporation (40 percent) and a local company PT Intanjaya Agromegah Abadi (20 percent), plans to invest US $6 billion to build two oil refineries in Pare-Pare, South Sulawesi and Batam Island, Riau, with a capacity of 300,000 B/D each. The two refinery projects, with identical specifications, are also expected to be operational in 2004.